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Atty Docket No.: 200311035-2

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor(s):   Vanish TALWAR et al.   **Confirmation No.:**   3580

Serial No.:   10/632,333   **Examiner:** Jeffrey R. SWEARINGEN

Filed: July 31, 2003   **Group Art Unit:**   2445

Title: RESOURCE ALLOCATION MANAGEMENT IN INTERACTIVE GRID
         COMPUTING SYSTEMS

MAIL STOP AMENDMENT
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

DRAFT

PRELIMINARY AMENDMENT ACCOMPANYING
A REQUEST FOR CONTINUED EXAMINATION (RCE)

Sir:

In response to the Office Action dated December 11, 2008, kindly amend the

application identified above as follows in this preliminary amendment accompanying an

RCE. In the following, underlines indicate insertions and strikethroughs and double brackets

indicate deletions.

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<u>IN THE CLAIMS:</u>

Please find below a listing of all of the pending claims. The statuses of the claims are set forth in parentheses.

1. (Currently Amended) A method for resource allocation management for an interactive session on a grid computing system, comprising:

receiving an end user request for an interactive session with the end user;

identifying any application programs needed by the end user to be launched in said interactive session;

<u>determining a user class to which the end user belongs;</u>

determining resource requirements for said interactive session including processor, network bandwidth, executables and files requirements;

<u>consulting one or more user class authorization policy files to determine resource allocation policies for the end user's user class;</u>

generating a contract for the interactive session specifying resource allocations and authorizations, wherein the contract includes a service level agreement with the end user <u>and the resource allocations and authorizations in the contract are determined based on the end user's class and the resource allocation policies for the end user's class;</u> and

allocating resources for the interactive session in accordance with the service level agreement.

2. (Previously Presented) The method of claim 1, wherein:

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the step of identifying application programs to be launched in the interactive session
includes consulting a user directory to identify application programs which the end user is
authorized to use.

3. (Previously Presented) The method of claim 1, wherein:

the step of determining resource requirements includes consulting one or more
application profile files which provide information concerning the resource requirements for
individual applications.

4. (Canceled).

5. (Previously Presented) The method of claim 1, wherein:

the step of generating said contract includes generating an authorization policy.

6. (Previously Presented) The method of claim 1, further comprising:

monitoring the interactive session to ensure compliance with terms of the contract.

7. (Previously Presented) The method of claim 1, wherein:

the step of allocating resources for the interactive session is performed by a grid
scheduler which receives the end user request and the contract.

8. (Currently Amended)   A system for managing resource allocation for an interactive
session on a grid computing system, the system comprising:

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one or more processors;

one or more memories coupled to the one or more processors; and

program instructions stored in the one or more memories, the one or more processors
for executing the program instructions including:

receiving an end user request for the interactive session with the end user;

identifying applications for the end user to be launched in the interactive session;

determining a user class to which the end user belongs;

determining resource requirements for the interactive session including processor,
network bandwidth, executables and files requirements;

consulting one or more user class authorization policy files to determine resource
allocation policies for the end user's user class;

generating a contract for the interactive session specifying resource allocations and
authorizations, wherein the contract includes a service level agreement with the end user and
the resource allocations and authorizations in the contract are determined based on the end
user's class and the resource allocation policies for the end user's class; and

allocating resources for the interactive session in accordance with the service level
agreement.

9. (Previously Presented) The system of claim 8, further comprising:

a user directory which includes for the end user a list of applications which the end
user is authorized to use.

10. (Original) The system of claim 8, further comprising:

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an application profiles repository for providing information concerning resource requirements for individual applications.

11. (Original) The system of claim 8, further comprising:

a user class authorization policy repository for providing resource allocation policies for different user classes.

12. (Previously Presented) The system of claim 8, further comprising:

a grid scheduler which receives the end user request and the contract and performs the step of allocating resources for the interactive session.

13-14. (Canceled).

15. (Currently Amended) A system for managing resource allocation for an interactive session on a grid computing system, comprising:

a distributed resource management node, the distributed resource management node including a distributed resource management interface and a grid scheduler, the grid scheduler configured to receive an end user request and output an admission control decision;

a contract generation engine coupled to the distributed resource management node, the contract generation engine configured to determine resource requirements for an interactive session with the end user, to determine a user class to which the end user belongs, to consult one or more user class authorization policy files to determine resource allocation policies for the end user's user class, and to generate a contract specifying resource allocations and authorizations, wherein the contract includes a service level agreement with

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the end user <u>and the resource allocations and authorizations in the contract are determined</u>

<u>based on the end user's class and the resource allocation policies for the end user's class</u>; and

a contract repository configured to store the service level agreement.

16. (Previously Presented) The system of claim 15, further comprising:

a user directory which includes for the end user a list of applications which the end

user is authorized to use.

17. (Previously Presented) The system of claim 15, further comprising:

an application profiles repository, for providing the resource requirements information

for individual applications.

18. (Original) The system of claim 15, further comprising:

a user class authorization policy repository for providing resource allocation policies

for different user classes.

19-20. (Canceled).

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REMARKS

Favorable reconsideration of this application is respectfully requested in view of the amendments above and the following remarks. Claims 1-3, 5-12 and 15-18 are pending of which claims 1, 8 and 15 are independent. Claim 4 is canceled herein and claims 13-14 and 19-20 were previously canceled.

Claims 1-12 and 15-18 were rejected under 35 U.S.C. §102(e) as allegedly being anticipated by Clarke, Jr. et al. (US 2004/0221038).

Claim Rejection Under 35 U.S.C. §102

The test for determining if a reference anticipates a claim, for purposes of a rejection under 35 U.S.C. § 102, is whether the reference discloses all the elements of the claimed combination, or the mechanical equivalents thereof functioning in substantially the same way to produce substantially the same results. As noted by the Court of Appeals for the Federal Circuit in *Lindemann Maschinenfabrick GmbH v. American Hoist and Derrick Co.*, 221 USPQ 481, 485 (Fed. Cir. 1984), in evaluating the sufficiency of an anticipation rejection under 35 U.S.C. § 102, the Court stated:

> Anticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, arranged as in the claim.

Therefore, if the cited reference does not disclose each and every element of the claimed invention, then the cited reference fails to anticipate the claimed invention and, thus, the claimed invention is distinguishable over the cited reference.

Claims 1-12 and 15-18 were rejected under 35 U.S.C. §102(e) as allegedly being anticipated by Clarke, Jr. et al. (US 2004/0221038).

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Independent claims 1 and 8 have been amended to recite determining a user class for an end user, consulting one or more user class authorization policy files to determine resource allocation policies for the end user's user class, and generating a contract based on the end user's class and the resource allocation policies for the end user's class.

Some of these features were recited in canceled claim 4. Support for these features is provided on page 5, lines 4-13, the description of figure 3 on page 6.

Clark fails to teach these features. Clark fails to teach SLA contract generation based on user class. The rejection alleges class information is disclosed in paragraphs 36 and 41 of Clark. Paragraph 36 of Clark states the system administrator controls all the user accounts on the dedicated computer systems. However, Clark does not disclose the system administrator determines allocation policies and generates SLAs based on a user class. No user classes are disclosed in Clark.

Paragraph 41 describes the type of data that is aggregated and stored in Clark. This data is eventually used to make resource allocation decisions. See paragraphs 55-58 of Clark. However, Clark does not disclose the aggregated data includes allocation policies and SLAs determined based on an end user's class.

Independent claim 15 recites features similar to claims 1 and 8 described above, which are not taught by Clark. Accordingly, claims 1-3, 5-12 and 15-18 are believed to be allowable.

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<u>Conclusion</u>

In light of the foregoing, withdrawal of the rejections of record and allowance of this application are earnestly solicited.

Should the Examiner believe that a telephone conference with the undersigned would assist in resolving any issues pertaining to the allowability of the above-identified application, please contact the undersigned at the telephone number listed below. Please grant any required extensions of time and charge any fees due in connection with this request to deposit account no. 08-2025.

Respectfully submitted,

Dated: March 11, 2009   By   _____
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